

In the Claims:

The following claims will replace all prior versions of the claims in this application (in the unlikely event that no claims follow herein, the previously pending claims will remain):

1. (Previously presented) A fuel cell assembly including at least one plate for (a) conducting current and/or (b) distributing fluid, the plate comprising a metallic substrate with a coating of an electrocatalytically-active material comprising ruthenium oxide.
2. (Currently amended) The fuel cell assembly of Claim 1 in which the electrocatalytically-active material further comprises, in addition to ruthenium oxide, at least one other metal oxide.
3. (Currently amended) The fuel cell assembly of Claim 1 in which the electrocatalytically-active material further comprises, in addition to ruthenium oxide, at least one metal or metal oxide from Group 8 of the Periodic Table of Elements.
4. (Currently amended) The fuel cell assembly of Claim 1 in which the electroactively-active material further comprises, in addition to ruthenium oxide, at least one of PtO, Sb₂O₃, Ta₂O₅, PdO, CeO₂, Co₃O₄, TiO₂, SnO₂ and IrO₂.
5. (Currently amended) The fuel cell assembly of Claim 1 in which the electroactively-active material further comprises, in addition to ruthenium oxide, TiO₂.
6. (Currently amended) The fuel cell assembly of Claim 1 in which the electroactively-active material further comprises, in addition to ruthenium oxide, SnO₂.
7. (Currently amended) The fuel cell assembly of Claim 1 in which the electroactively-active material further comprises, in addition to ruthenium oxide, IrO₂.

8. (Currently amended) A PEM, phosphoric acid or direct methanol fuel cell assembly, for (a) conducting current and/or (B) distributing fluid, comprising at least one ~~the~~ plate comprising a metallic substrate with a coating of an electrocatalytically-active material comprising a mixture of ruthenium or an oxide thereof, and a metal or oxide of a metal selected from the group comprising Sn, Fe, Co, Ni or Os.

9. (Currently Amended) ~~The A fuel cell assembly of Claim 1, the plate being in the form of a~~ including at least one bipolar or separator plate for disposition between adjacent fuel cell units for (a) conducting current and/or (b) distributing fluid, said at least one plate comprising a metallic substrate with a coating of an electrocatalytically-active material comprising ruthenium oxide.

10. (Cancelled).

11. (Currently amended) The fuel cell assembly of Claim 1 ~~9~~, the plate having a fluid inlet aperture and a fluid outlet aperture and being provided with surface features forming channels for conducting fluid flow from the inlet aperture to the outlet aperture.

12. (Previously presented) The fuel cell assembly of Claim 11 in which the inlet and outlet apertures are located at opposite sides of the plate and the surface features are located in the region of the plate extending between the inlet and outlet apertures.

13. (Previously presented) The fuel cell assembly of Claim 11 in which the surface features comprise a series of corrugations or a serpentine pattern.

14. (Previously presented) The fuel cell assembly of Claim 11, the surface features being embossed, etched, engraved, moulded, stamped, or die cast.

15. (Cancelled).

16. (Currently amended) The fuel cell assembly of Claim ~~15~~ 9 in which the substrate is a metal selected from Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zr, Nb, Ag, Pt, Ta, Pb, Al or alloys thereof.

17. (Currently amended) The fuel cell assembly of Claim ~~15~~ 9, the substrate of the plate being of ~~aluminium~~ aluminum or an alloy thereof.

18. (Currently amended) The fuel cell assembly of Claim ~~15~~ 9, the substrate of the plate being of titanium or an alloy thereof.

19. (Currently amended) The fuel cell assembly of Claim ~~15~~ 9, the substrate of the plate being of iron or an alloy thereof.

20. (Previously presented) The fuel cell assembly of Claim 1, wherein the plate is a terminal plate.

21. (Previously presented) The fuel cell assembly of Claim 11 in which the plate has a further fluid inlet aperture and a further fluid outlet aperture and is provided on its opposite face with surface features forming channels for conducting fluid flow from the further inlet aperture to the further outlet aperture.

22. (Currently amended) The fuel cell assembly of Claim ~~1~~ 9 in which the substrate is of monolithic structure.

23. (Currently amended) The fuel cell assembly of Claim ~~1~~ 9 in which the substrate is of composite structure.

24. (Currently amended) The fuel cell assembly of Claim ~~1~~ 9 ~~in which the~~ wherein said at least one plate includes fittings for connection to an external electrical circuit to which energy generated by the ~~stack~~ assembly is to be supplied.

25. (Currently amended) The fuel cell assembly of Claim 1 9 including pipework for conducting fluids to and/or from the ~~stack~~ assembly.
26. (Previously presented) The fuel cell assembly of Claim 25 in which the internal surfaces of the pipework are at least in part coated with said coating.
27. (Currently amended) The fuel cell assembly of Claim 1 in which the plate is an intermediate separator plate operable in use to conduct current from the anode of one fuel cell unit to the cathode of the adjacent fuel cell unit and/or distribute fluid flow in the fuel cell ~~stack~~ assembly.
28. (Previously presented) The fuel cell assembly of Claim 11 in which the inlet and outlet apertures are located at opposite sides of the plate.
29. (Previously presented) The fuel cell assembly of Claim 28 including surface features located in the region of the plate extending between the inlet and outlet apertures.
30. (Previously presented) A plate, for use in a fuel cell assembly, for (a) conducting current and/or (b) distributing fluid, the plate comprising a substrate with a coating of an electrocatalytically-active material comprising a nickel/cobalt spinel, wherein said substrate comprises at least one metal selected from Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zr, Nb, Ag, Pt, Ta, Pb, Al or alloys thereof.
31. (Cancelled).
32. (Currently amended) The fuel cell assembly of Claim 1 9, being a PEM, phosphoric acid or direct methanol fuel cell.
33. (Cancelled).

34. (Currently amended) The fuel cell assembly of Claim 1 9 including separator plates and end and/or current-collecting plates, and is in which only the end and/or current-collecting plates of the assembly are provided with said coating.

35. (Currently amended) The fuel cell assembly of Claim 1 9 including separator plates and end and/or current-collecting plates, and is in which the end and/or current-carrying plates and only some of the separator plates are provided with said coating.

36. (Previously presented) A fuel cell assembly comprising a plurality of individual fuel cell units each comprising an anode, a cathode and ion exchange membrane disposed between the anode and the cathode, a plurality of bipolar or separator plates located between the anode of one unit and the cathode of an adjacent unit, and end and/or current-collecting plates associated with the assembly, wherein at least one of the end and/or current-collecting plates and/or at least one of the bipolar or separator plates comprises a metallic substrate provided with a coating of an electrocatalytically-active material comprising ruthenium oxide or a mixture of ruthenium or oxide thereof, and a metal or oxide of a metal selected from Sn, Fe, Co, Ni or Os.

37. (Previously presented) A fuel cell assembly comprising:

- a) a plurality of fuel cell units each of which contains a proton-exchange membrane separating the cell into anolyte and catholyte chambers and provided with an anode and a cathode on opposite sides thereof;
- b) a separator or bipolar plate disposed between adjacent cell units;
- c) end and/or current-collecting plates associated with the assembly;
- d) means for feeding hydrogen fuel to the anolyte chambers of the assembly; and
- e) means for feeding an oxygen-containing gas to the catholyte chambers of the assembly;

wherein at least one end and/or current-collecting plate and/or at least one separator plate or bipolar plate comprises a metallic substrate provided with a coating of an electrocatalytically-active material comprising ruthenium oxide or a mixture of ruthenium or oxide thereof, and a metal or oxide of a metal selected from Sn, Fe, Co, Ni or Os.

38. (Previously presented) The fuel cell assembly of Claim 1, being a phosphoric acid fuel cell.
39. (Cancelled).
40. (Previously presented) The fuel cell assembly of Claim 36 including means for cooling the interior of the assembly.
41. (Previously presented) The fuel cell assembly of Claim 36 in which the end and/or current-collecting plates are provided with projections for engagement with a support surface to support the remainder of the assembly in spaced relation with the surface.
42. (Previously presented) The fuel cell assembly of Claim 36 in which the end and/or current-collecting plates comprise the primary means for the application of compression to the assembly.
43. (Previously presented) The fuel cell assembly of Claim 36 in which compression is applied to the end and/or current-collecting plates and to the remainder of the assembly by means of compression-applying plates located outboard of the end plates.
44. (Previously presented) The fuel cell assembly of Claim 36 in which the end and/or current-collecting plates are thicker than the separator plates.
45. (Previously presented) The fuel cell assembly of Claim 36 including humidifying means for introducing water vapour into the fuel and oxidant streams supplied to the assembly.
46. (Currently amended) A plate, for use in a fuel cell assembly, for (a) conducting current and/or (b) distributing fluid, the plate comprising a ~~metallic~~ stainless steel substrate with a coating of an electrocatalytically-active material that comprises ruthenium oxide and

an oxide selected from the group comprising TiO_2 , SnO_2 and IrO_2 , ~~the metallic substrate being selected from aluminum, or an alloy thereof, or iron, or an alloy thereof.~~

47. (Cancelled).

48. (Previously presented) A plate, for use in a fuel cell assembly, (a) conducting current and/or (b) distributing fluid, the plate comprising a substrate with a coating of an electrocatalytically-active material comprising a nickel/cobalt spinel, the substrate comprising a metal selected from the group comprising Ti, Fe, Al, and alloys thereof.

49. (Currently amended) A fuel cell assembly as claimed in Claim 36 in which said metallic substrate comprises a metal selected from the group comprising ~~aluminium~~ aluminum or an alloy thereof; titanium or an alloy thereof; iron or an alloy thereof; and stainless steel.

50. (New) A fuel cell assembly including at least one end plate and/or current-collecting plate for (a) conducting current and/or (b) distributing fluid, said at least one plate comprising a metallic substrate with a coating of an electrocatalytically-active material comprising ruthenium oxide.

51. (New) The fuel cell assembly of Claim 50 in which the electrocatalytically-active material further comprises, in addition to ruthenium oxide, at least one other metal oxide.

52. (New) The fuel cell assembly of Claim 50 in which the electrocatalytically-active material further comprises, in addition to ruthenium oxide, at least one metal or metal oxide from Group 8 of the Periodic Table of Elements.

53. (New) The fuel cell assembly of Claim 50 in which the electroactively-active material further comprises, in addition to ruthenium oxide, at least one of PtO , Sb_2O_3 , Ta_2O_5 , PdO , CeO_2 , Co_3O_4 , TiO_2 , SnO_2 and IrO_2 .

54. (New) The fuel cell assembly of Claim 50 in which the electroactively-active material further comprises, in addition to ruthenium oxide, TiO_2 .

55. (New) The fuel cell assembly of Claim 50 in which the electroactively-active material further comprises, in addition to ruthenium oxide, SnO_2 .

56. (New) The fuel cell assembly of Claim 50 in which the electroactively-active material further comprises, in addition to ruthenium oxide, IrO_2 .

57. (New) The fuel cell assembly of Claim 50, the plate having a fluid inlet aperture and a fluid outlet aperture and bring provided with surface features forming channels for conducting fluid flow from the inlet aperture to the outlet aperture.

58. (New) The fuel cell assembly of Claim 50 in which the substrate is a metal selected from Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zr, Nb, Ag, Pt, Ta, Pb, Al or alloys thereof.

59. (New) The fuel cell assembly of Claim 50, the substrate of the plate being of aluminum or an alloy thereof.

60. (New) The fuel cell assembly of Claim 50, the substrate of the plate being of titanium or an alloy thereof.

61. (New) The fuel cell assembly of Claim 50, the substrate of the plate being of iron or an alloy thereof.

62. (New) The fuel cell assembly of Claim 50 in which the substrate is of monolithic structure.

63. (New) The fuel cell assembly of Claim 50 in which the substrate is of composite structure.

64. (New) The fuel cell assembly of Claim 50 wherein said at least one plate includes fittings for connection to an external electrical circuit to which energy generated by the assembly is to be supplied.

65. (New) The fuel cell assembly of Claim 50 including pipework for conducting fluids to and/or from the assembly.

66. (New) The fuel cell assembly of Claim 50, being a PEM, phosphoric acid or direct methanol fuel cell.

67. (New) The fuel cell assembly of Claim 50 including separator plates and end and/or current-collecting plates, and in which only the end and/or current-collecting plates of the assembly are provided with said coating.

68. (New) The fuel cell assembly of Claim 50 including separator plates and end and/or current-collecting plates, and in which the end and/or current-carrying plates and only some of the separator plates are provided with said coating.